

## **REMARKS**

Claims 3 through 34 are now pending in the application. Claims 1, 2, and 16 are herein canceled. Claims 3-10, 12, and 21 are herein amended. Claims 33 and 34 are herein added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 103**

#### **Claims 1 through 7, 9, 12 through 14, 16 through 27 and 29 through 32**

Claims 1 through 7, 9, 12 through 14, 16 through 27 and 29 through 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Corl et al. (U.S. Pat. No. 4,870,394) in view of Duffoo (U.S. Pat. No. 5,899,414). This rejection is respectfully traversed.

It is initially noted Claims 1 and 2 have been herein canceled, rendering the 35 U.S.C. § 103(a) rejection of Claims 1 and 2 moot. Claim 33 has been herein added, and Claims 3, 4, 9, and 10 have been amended to depend from new Claim 33. Claim 33 substantially includes the features of canceled Claims 1 and 2.

In contrast to Applicant, Corl et al. appears to teach only an energized on light indicating an alarm condition, stating "If any light is illuminated, this indicates sufficient smoke sensed by the detector to indicate that smoke is present, viz, an alarm." See column 2, lines 24-26. Although Corl et al. teach a blinking light, Corl et al. teach that the blinking light is only activated during a test condition. "When push to-test-button 13 is actuated.... if there is a blinking light (specifically at a 5 Hz rate), this is a marginal or "maintenance required" condition." See column 2, lines 27-34. "A flashing marginal

condition will be indicated as provided by comparator 77." See column 5, lines 8-10. "Comparators 86 and 77 are operable only during the so-called test function as implemented at input 78.' Corl et al. does not teach or suggest a blinking light identifying an actually alarming sensor, is silent as to identifying which detector is the first to alarm, and therefore does not teach or suggest any indication that itself visually distinguishes a first to alarm detector from a second or subsequent to alarm detector, or using a blinking light distinguishing from a constantly-on light.

In contrast to Applicant, Duffoo appears to teach "a plurality of smoke detectors 14 each adapted to transmit an activation signal only during the detection of smoke" (see column 4, lines 34-36) and "a plurality of temperature sensors 16 each adapted to transmit an activation signal upon the detection of a temperature greater than a predetermined amount" (see column 4, lines 43-46). "The smoke detectors include a first smoke detector situated within the engine of the aircraft, a second smoke detector situated within the baggage storage area of the aircraft, a third smoke detector situated within the kitchen area of the aircraft, and a fourth smoke detector situated within the cabin area of the aircraft." See column 4, lines 36-41. "Which smoke detector is in communication with the output of the first multiplexer is determined via a selection input thereof, similar to the previous multiplexers." See column 4, lines 64-67. Duffoo teaches "a control panel is included to provide a visual and audio indication that an activation signal has been received. The control panel is also adapted to indicate which component has transmitted the activation signal." See column 5, line 66 to column 6, line 2. Duffoo does not identify how the control panel is adapted to indicate which component has transmitted the activation signal. Assuming arguendo that a light is used

by Duffoo, which is not admitted, the identification function is similar to Corl et al. and Duffoo therefore does not teach or suggest Applicant's system. Because Duffoo positions each smoke detector in a separate area of the aircraft there is no need or suggestion for Duffoo to differentiate a first alarming detector of a plurality of detectors located in a compartment. Duffoo, like Corl et al. is silent as to identifying multiple alarming detectors and is further silent as to specifically identifying which of the detectors is the first alarming detector using a visual light indication of the first to alarm detector and differentiating this light indication from any subsequent indication.

The suggested modification of Corl et al. and Duffoo, individually or in combination do not teach or suggest "a blinking light defining a first energized one of the first and second smoke detector signaling indicators indicating the smoke detector smoke alarm condition of a first alarming one of the first and second smoke detectors; and a continuously-energized-on light defining a second energized one of the first and second smoke detector signaling indicators indicating the smoke detector smoke alarm condition of a second alarming one of the first and second smoke detectors". Therefore the suggested modification of Corl et al. and Duffoo cannot render Claim 33 obvious. Because Claims 3 through 7 and 9 depend from Claim 33, the suggested modification of Corl et al. and Duffoo cannot render Claims 3 through 7 or 9 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 3 through 7 and 9.

It is initially noted Claim 12 has been amended herein to include the subject matter of Claim 16 and Claim 16 has therefore been canceled. Claim 12 has been

further amended to more clearly define a shape of the indicator lights each mimics the entirety of each of the zones of a compartment of the mobile platform. Support for this amendment is found in paragraph [0035] of the specification.

Claim 12 has been amended to recite in part:

*"wherein each of the indicators defines one of a plurality of compartment zones, each of the compartment zones having a predetermined shape, each indicator when lit mimicking entirely the predetermined shape of one of the compartment zones to visually distinguish on the panel an alarming zone location by the predetermined shape."*

Corl et al. appears to teach "the smoke detector system of the present invention would have several smoke detectors mounted in the cargo bay of an aircraft with the outline of the airplane indicated at 14, in the various six locations so numbered. Each unit is associated with a warning light 11 or alarm light." See column 2, lines 19-24. As clearly evident in Figure 1, each warning light 11 has the same circular shape which does not mimic a shape of any "zone" of the aircraft within the cargo bay identified as item 14. Any of the circular lights 11 to illuminate as a result of an alarming detector would therefore indicate only one of the locations 1-6. Corl et al. therefore does not teach or suggest each of the indicators defines one of a plurality of compartment zones, each of the compartment zones having a predetermined shape, each indicator when lit mimicking entirely the predetermined shape of one of the compartment zones to visually distinguish on the panel an alarming zone location by the predetermined shape.

As noted above, Duffoo does not identify how the control panel is adapted to indicate which component has transmitted the activation signal. Duffoo therefore does not teach or suggest each of the indicators defines one of a plurality of compartment zones, each of the compartment zones having a predetermined shape, each indicator

when lit mimicking entirely the predetermined shape of one of the compartment zones to visually distinguish on the panel an alarming zone location by the predetermined shape.

The suggested modification of Corl et al. and Duffoo therefore cannot render Claim 12 obvious. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 12. Because Claims 13 through 15 and 17 through 20 depend from Claim 12, the suggested modification of Corl et al. and Duffoo cannot render Claims 13 through 15 or 17 through 20 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 13 through 15 and 17 through 20.

The suggested modification of Corl et al. and Duffoo cannot render Claim 19 obvious for the following additional reason. The Examiner noted “It is obvious of one having ordinary skill in the art that the designators of fire fighting equipment of Duffoo can be defined, whereby it is located adjacent to the sensor”. Applicant respectfully disagrees with this conclusion. Claim 19 does not require the first designator to be located adjacent to the sensor, but identifies on the mimic where a piece of fire fighting equipment is located. As recited, the location of the first designator visually defines a corresponding location of a piece of fire fighting equipment located in the compartment. Duffoo does not teach or suggest a designator of a piece of fire fighting equipment located on the control panel. Because operation of the Duffoo fire fighting equipment is automatic, “the control means actuates one of fire extinguishers that is adjacent the smoke detector which transmitted the activation signal”, (see column 5, lines 50-52), there is no suggestion or reason in Duffoo for identifying the location of a piece of fire

fighting equipment on the control panel which is identified in Figure 3 as a pilot control panel. The pilot would have no need for this information. Corl et al. also does not teach or suggest a location of the first designator visually defines a corresponding location of a piece of fire fighting equipment located in the compartment. The suggested modification of Corl et al. and Duffoo therefore cannot render Claim 19 obvious.

It is initially noted Claim 21 has been herein amended to recite in part:

*"routing a smoke alarm signal from each of the smoke detectors through the control loop; and operably and visually distinguishing a first alarming smoke detector from a second and any subsequent alarming ones of the plurality of smoke detectors."*

Support for this amendment is found in paragraphs [0027] and [0028] of the specification.

For at least the same reasons as noted above with respect to Claim 33, neither of the references of Corl et al. and Duffoo alone or in combination teach or suggest operably and visually distinguishing a first alarming smoke detector from a second and any subsequent alarming ones of the plurality of smoke detectors. The suggested modification of Corl et al. and Duffoo therefore cannot render Claim 21 obvious. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 21. Because Claims 22 through 27 depend from Claim 21, the suggested modification of Corl et al. and Duffoo cannot render Claims 22 through 27 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 22 through 27.

For at least the same reasons as noted above with respect to Claim 33, the suggested modification of Corl et al. and Duffoo cannot render either of Claims 29 or 32 obvious. Claim 29 recites determining which one of said elevated temperature condition and which one of said smoke alert condition occurred first; and displaying information to an occupant of said mobile platform of the existence of said elevated temperature condition and said smoke alert condition for a given said zone, and identifying which one of said elevated temperature condition and said smoke alert condition occurred first in time. Claim 32 recites determining which one of said elevated temperature condition and which one of said smoke alert condition occurred first, and displaying information on said indicator panel to an occupant of said structure of the existence of said elevated temperature condition and said smoke alert condition for a given said zone, and which one of said elevated temperature condition and said smoke alert condition occurred first in time. Neither of the references of Corl et al. or Duffoo teach or suggest determining a first smoke or temperature condition to occur and displaying information to identify which condition occurred first.

The suggested modification of Corl et al. and Duffoo therefore cannot render either of Claims 29 or 32 obvious. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 29 and 32. Because Claims 30 and 31 depend from Claim 29, the suggested modification of Corl et al. and Duffoo cannot render Claims 30 or 31 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 30 and 31.

### **Claims 8, 15 and 28**

Claims 8, 15 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Corl et al. (U.S. Pat. No. 4,870,394) in view of Duffoo (U.S. Pat. No. 5,899,414), and further in view of Lynch (U.S. Pat. No. 6,351,212). This rejection is respectfully traversed.

With respect to Claim 8, in addition to the above discussion of Corl et al. and Duffoo, Lynch appears to teach a system “adaptable to monitor the operability of a single or a plurality of fire event sensors.” See column 3, lines 22-23. Lynch teaches “At predetermined time intervals of the RC pair 402, the logic circuit 400 transmits a signal 404 to each sensor to send data to the logic circuit 400 for analysis.” See column 4, lines 46-48. “The logic circuit 400 will determine and initiate the appropriate output signal 462, such as actuation of the alarm 310, following analysis of the data stream 440 by the logic circuit 400 according to predetermined parameters.” See column 4, lines 52-56.

The Lynch sensors appear to be tested in series. For example, “The circuit 200 checks the sensitivity of said first sensor 210 relative to the appropriate air condition according to predetermined parameters 256. See column 3, lines 56-58. “In like manner, the logic circuit 200 proceeds to compare (250’-258’) the data received from the next sensor 220... and so on... for as many sensors 230 as are housed within a detection device.” See column 4, lines 1-5. This indicates that any first alarm to occur is dependent on which sensor in the order tested fails an operability test, and does not teach or suggest a first smoke detector signaling indicator positioned on the indication panel and connected to a first one of the smoke detectors and operable to indicate the

smoke detector smoke alarm condition of the first smoke detector as recited in Claim 33.

The suggested modification of Corl et al., Duffoo, and Lynch therefore cannot render Claim 33 obvious, and therefore cannot render Claim 8, which depends from Claim 33 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 8.

With respect to Claim 15, in addition to the above discussion of Corl et al. and Duffoo, Lynch does not teach or suggest each of the indicators defines one of a plurality of compartment zones, each of the compartment zones having a predetermined shape, each indicator when lit mimicking entirely the predetermined shape of one of the compartment zones to visually distinguish on the panel an alarming zone location by the predetermined shape.

The suggested modification of Corl et al. and Duffoo, and Lynch therefore cannot render Claim 12 obvious, and therefore cannot render Claim 15, which depends from Claim 12 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 15.

With respect to Claim 28, in addition to the above discussion of Corl et al. and Duffoo, Lynch does not teach or suggest routing a smoke alarm signal from each of the smoke detectors through the control loop; and operably and visually distinguishing a first alarming smoke detector from a second and any subsequent alarming ones of the plurality of smoke detectors.

The suggested modification of Corl et al. and Duffoo, and Lynch therefore cannot render Claim 21 obvious, and therefore cannot render Claim 28, which depends from

Claim 21 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claim 28.

### **Claims 10 through 11**

Claims 10 through 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Corl et al. (U.S. Pat. No. 4,870,394) in view of Duffoo (U.S. Pat. No. 5,899,414), and further in view of Kimmel et al. (U.S. Pat No. 6,917,288). This rejection is respectfully traversed.

Claim 10 has been amended to depend from new Claim 33. As noted above, the suggested modification of Corl et al. and Duffoo, individually or in combination cannot render Claim 33 obvious.

Kimmel et al. appears to teach “at least three different states (for example, not in alarm; recently in alarm; and in alarm) are associated with the sensor located at each alarm point in the FIG. 1 floorplan to provide a multistate indication for each alarm point at the user interface.” See column 4, lines 43-47. “Additional states to represent inoperable or disabled alarm points” can also be provided.” See column 4, lines 49-50.

Kimmel et al. also does not teach or suggest a blinking light defining a first energized one of the first and second smoke detector signaling indicators indicating the smoke detector alarm condition of a first alarming one of the first and second smoke detectors; and a continuously-energized-on light defining a second energized one of the first and second smoke detector signaling indicators indicating the smoke detector alarm condition of a second alarming one of the first and second smoke detectors.

The suggested modification of Corl et al., Duffoo, and Kimmel et al. therefore cannot render Claim 33 obvious. Because Claims 10 and 11 depend from Claim 33, the suggested modification of Corl et al., Duffoo, and Kimmel et al. cannot render Claims 10 or 11 obvious for at least the same reasons. The Examiner is respectfully requested to withdraw the 35 U.S.C. § 103(a) rejection of Claims 10 and 11.

#### **CLAIM AMENDMENTS**

Claims 4, 9, and 10 have been amended herein to depend from new Claim 33, Claim 1 being herein canceled and replaced by Claim 33. The Examiner is respectfully requested to enter amended Claims 4, 9, and 10.

Claim 5 has been editorially amended to recite the threshold alarm set point, consistent with this element of Claim 4 to place the claim in better condition for allowance. The Examiner is respectfully requested to enter amended Claim 5.

Claims 6 and 7 have been amended to eliminate reference to [[both the first smoke indication signal]] and [[both the second smoke indication signal]] respectively, as these elements are now substantially recited in Claim 33. Claim 8 has been similarly amended. The Examiner is respectfully requested to enter amended Claims 6, 7, and 8.

Claims 33 and 34 have been added herein. Claim 33 is reorganized from Claim 1 and substantially incorporates the subject matter of Claims 1 and 2 and further defines over the recited art herein. The Examiner is respectfully requested to enter amended Claim 33. Support for Claim 34 is found in paragraph [0026] of the specification and defines over the recited art by specifically reciting the location of the indication panel

proximate to an entrance to the compartment. The Examiner is respectfully requested to enter amended Claim 34.

**CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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